

S
636.294
F2nkd
1999

DRAFT

ENVIRONMENTAL

ASSESSMENT

NADON - KICKIN BULL RANCH GAME FARM

FEBRUARY 1999

PLEASE RETURN

STATE DOCUMENTS COLLECTION

MAR 07 1999

MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

Montana Fish, Wildlife & Parks
Region 1
490 North Meridian
Kalispell, Montana 59901

MONTANA STATE LIBRARY



3 0864 0014 3411 0

TABLE OF CONTENTS

Page

SUMMARY	1
INTRODUCTION	1
OBJECTIVES	1
PUBLIC PARTICIPATION	2
PROPOSED ACTION AND ALTERNATIVES	2
PURPOSE AND NEED OF THE PROPOSED ACTION	5
ROLE OF FWP AND DOL	5
AFFECTED ENVIRONMENT	5
ENVIRONMENTAL CONSEQUENCES	8
EA CONCLUSION	10
MITIGATION MEASURES	10
PART I. GAME FARM LICENSE APPLICATION INFORMATION	13
PART II. ENVIRONMENTAL REVIEW	16
EA DEFINITIONS	16
PHYSICAL ENVIRONMENT	
Land	17
Air	19
Water	21
Vegetation	24
Fish/Wildlife	26
HUMAN ENVIRONMENT	
Noise Effects	29
Land Use	30
Risk/Health Hazards	32
Community Impact	34
Public Services/Taxes	36
Aesthetics/Recreation	37
Cultural & Historical Resources	38
Summary	40
SUMMARY EVALUATION OF SIGNIFICANCE CRITERIA	41
PART III. NARRATIVE EVALUATION AND COMMENT	44
PART IV. EA CONCLUSION	46

FIGURES

FIGURE 1	Nadon Kickin Bull Ranch Game Farm Site Map and Land Ownership	3
FIGURE 2	Nadon Kickin Bull Ranch Game Farm Land Use and Land Cover Map	4
FIGURE 3	Nadon Kickin Bull Ranch Game Farm Big Game Distribution Map	7

APPENDICES

APPENDIX A	PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST
-------------------	--

SUMMARY

ENVIRONMENTAL ASSESSMENT PROPOSED NADON - KICKIN BULL RANCH GAME FARM

INTRODUCTION

Montana Fish, Wildlife & Parks (FWP) is required to perform an environmental analysis in accordance with the Montana Environmental Policy Act (MEPA) for each proposal for projects, programs, legislation, and other major actions of state government significantly affecting the quality of the human environment (Administrative Rules of Montana [ARM] 12.2.430). FWP uses environmental assessments (EAs) in the game farm licensing process to identify and evaluate environmental impacts of a proposed game farm. EAs also determine whether the impacts would be significant and whether, as a consequence, FWP would perform a more detailed environmental impact statement (EIS).

When preparing an EA, FWP reviews environmental impacts of the Proposed Action, impacts of the No Action Alternative, and impacts of other alternative actions which include recommended and/or mandatory measures to mitigate the project's impacts. A mitigated EA includes alternatives with enforceable requirements (stipulations) which reduce impacts of the Proposed Action. The EA may also recommend a preferred alternative for the FWP decision maker.

This EA is prepared for a proposed game farm (Nadon - Kickin Bull Ranch) near Eureka, Montana. Based upon its review of the Nadon Kickin Bull Ranch game farm application, FWP has prepared a mitigated EA.

OBJECTIVES

This EA has been prepared to serve the following purposes in accordance with FWP MEPA rules (ARM 12.2.430):

- ensure that FWP uses natural and social sciences in planning and decision making;
- to be used in conjunction with other agency planning and decision-making procedures to make a determination regarding the Proposed Action;
- assist in the evaluation of reasonable alternatives and the development of conditions, stipulations, and modifications to the Proposed Action;
- determine the need to prepare an EIS through an initial evaluation and determination of the significance of impacts associated with the Proposed Action;
- ensure fullest appropriate opportunity for public review and comment on the Proposed Action; and
- examine and document the effects of the Proposed Action on the quality of the human environment.

PUBLIC PARTICIPATION

Public involvement in the EA process includes steps to identify and address public concerns. The Draft EA will be available for public review and comment from February 11, 1999 until 5 pm March 4, 1999 from the Region 1 FWP office. Comments regarding this EA should be submitted to FWP at the location specified below.

Mr. Jim Roberts
Fish, Wildlife & Parks, Region 1
75 Pings Road
Eureka, Montana 59917
Phone (406) 889-3404

PROPOSED ACTION AND ALTERNATIVES

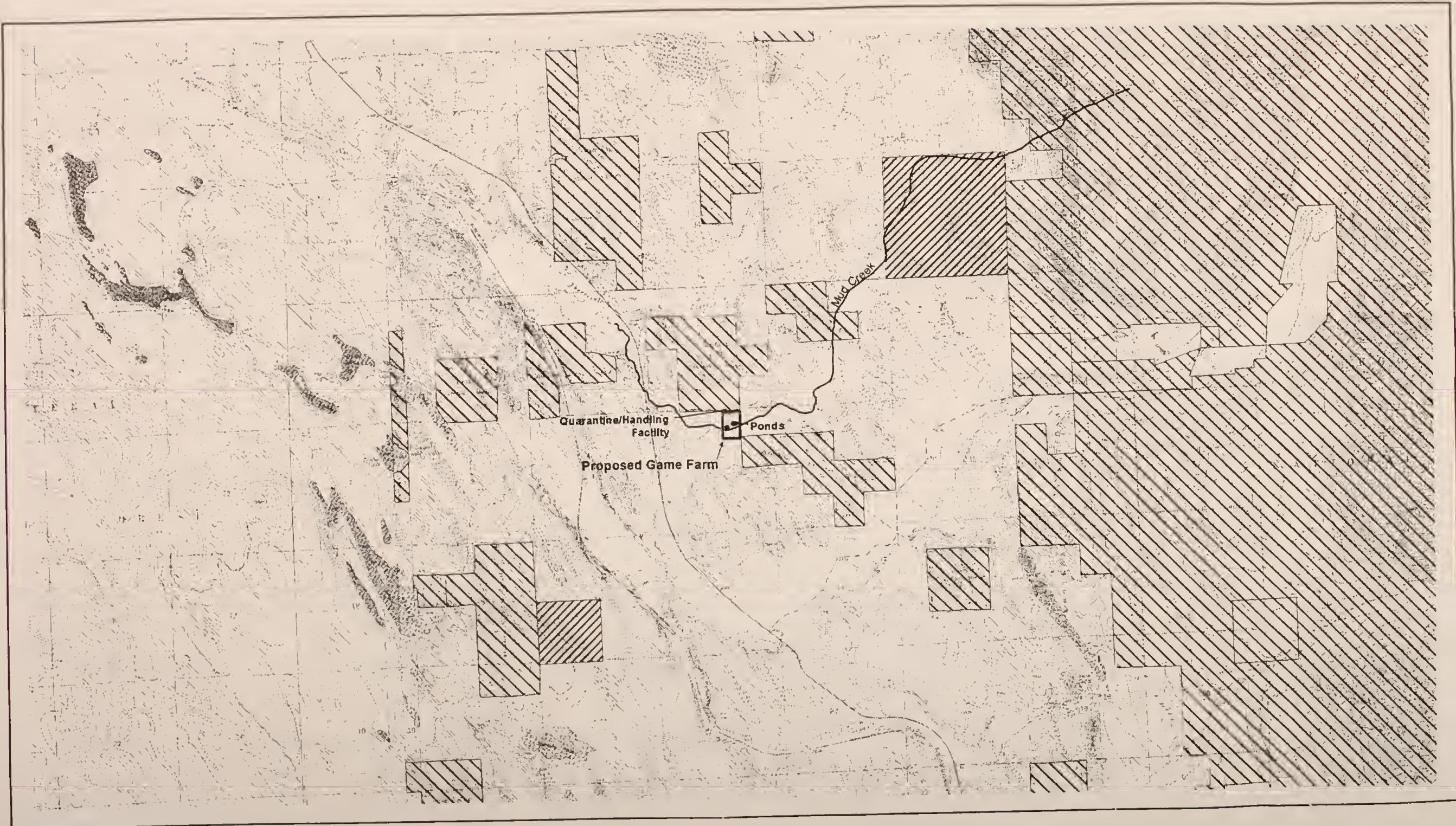
PROPOSED ACTION

FWP received an application, dated October 22, 1998 from Bradley Nadon on October 30, 1998 to construct a 20 acre elk game farm in Lincoln County, Montana (Figure 1). An amended application was received on November 20, 1998 from Bradley Nadon which included the following revisions: an exterior boundary setback, new northeast corner fencing location, and new quarantine and handling facility location and layout. The proposed Kickin Bull Ranch game farm would be located approximately 6 miles southeast of Eureka, Montana. The applicant would live adjacent to the game farm year round.

The Proposed Action consists of placing up to 20 elk in the game farm year-round for providing breeding stock and antler production. Perimeter fence gates would remain locked at all times except when game farm animals are moved into or out of the enclosure, at which time the gates would be monitored to prevent ingress/egress. The fence would be constructed and wild animals would be removed from the game farm enclosure prior to issuance of the license by FWP and Montana Department of Livestock (DoL).

The applicant would sell and dispose of domestic elk in accordance with Montana game farm and disease control requirements stipulated in Montana statute and administrative rules. Fence construction would be completed in accordance with requirements of FWP under ARM 12.6.1533. Game farm fencing would be constructed with an 8-foot setback from the exterior fencing existing along the west and south property boundaries, with an 8-foot setback from the toe of the hill located in the northeast corner of the property, and with a 4-foot setback from the exterior fencing along the east property boundary. The game farm fence would consist of 8-foot high, 6-inch mesh, high-tensile big game fencing; supported by 11-foot long, 2^{3/8}-inch diameter steel pipe set 3 feet into the soil and spaced at 20-foot intervals. Corner posts and braces would be 2^{7/8}-inch diameter pipe and cemented in the ground. Culverts to be installed beneath the game farm fence where it crosses Mud Creek would have both ends covered with removable 1/2-inch diameter, 4-inch mesh rebar grating.

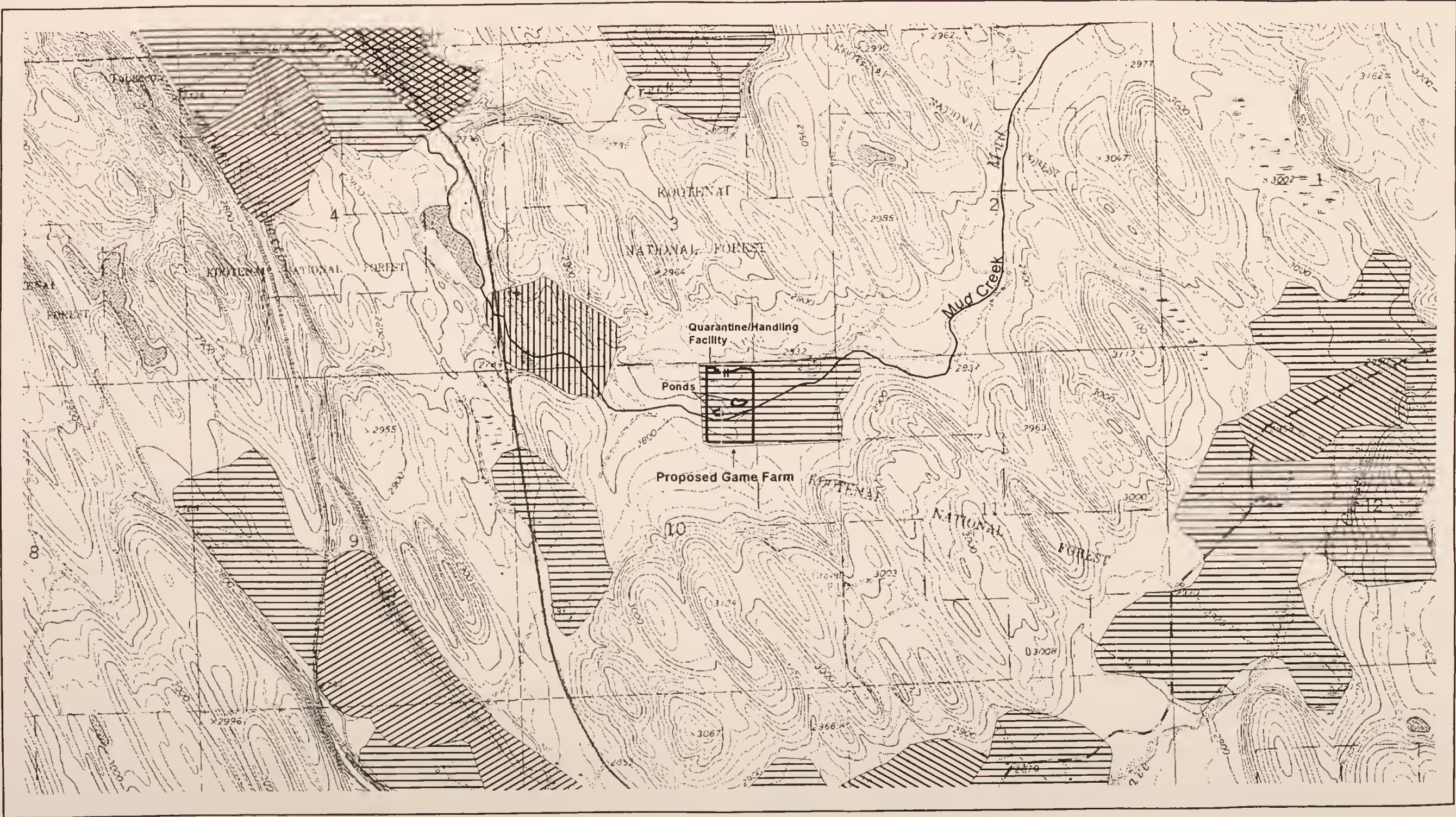
A total of two 8-foot high steel gates would be included in the perimeter fence (Figure 2). Gates will consist of a 2-inch diameter structural metal tubing frame, 8 feet high, and reinforced with hog paneling. The gates will have a double latch and single chain lock. A handling and quarantine facility would be constructed in the northwest portion of the game farm (Figure 2) for purposes of handling and testing the elk; this would be constructed according to DoL standards. Several interior fences would be constructed to allow rotational grazing of the pastures. The Proposed Action includes an internal fence along the south side of Mud Creek, but not along the north side.





Digitized by the Internet Archive
in 2016

https://archive.org/details/draftenvironmen1999mont_5



MAXIM 9731687 400

- Proposed Game Farm
- Crop / Pasture
- Grass Rangeland
- Mixed Rangeland
- Deciduous Forest
- Mixed Forest

Note: Land Use Data Derived From
Montana Public Lands
U.S. Bureau of Land Management
1:250,000 Scale Maps.
Topographic Base Derived From
U.S.G.S. 1:24,000 Scale Maps.
Land Use for areas not shown
in the legend are Evergreen Forest.

Land Use / Land Cover
Proposed Game Farm EA
Nadon-Kickin Bull Ranch Game Farm
Lincoln County, Montana
FIGURE 2

ALTERNATIVES

One alternative (No Action Alternative) is evaluated in this EA. Under the No Action Alternative, FWP would not issue a license for the Kickin Bull Ranch game farm as proposed. Implementation of the No Action Alternative would not preclude other activities allowed under local, state and federal laws to take place at the proposed game farm site.

PURPOSE AND NEED OF THE PROPOSED ACTION

The Kickin Bull Ranch game farm would be a private commercial enterprise that would provide breeding stock and antler production.

ROLE OF FWP AND DOL

FWP is the lead agency in preparing this EA for the proposed project. This document is written in accordance with the Montana Environmental Quality Council (EQC) MEPA Handbook and FWP statutory requirements for preparing an EA under Title 75, Chapter 1, Part 2 Montana Code Annotated (MCA) and FWP rules under ARM 12.6.1520.

FWP shares regulatory responsibilities for new and expanding game farms with DoL. The DoL is responsible for regulating the health, transportation and identification of game farm animals. During the application process, all quarantine area plans and specifications are submitted to the DoL for approval of the proposed quarantine facility. No game farm licenses are issued without DoL approval.

AFFECTED ENVIRONMENT

The proposed Kickin Bull Ranch game farm is located on about 20 acres approximately 6 miles southeast of Eureka, in Lincoln County, Montana. This section summarizes primary environmental resources in the project area. A detailed description of the affected environment is contained in *Part II - Environmental Review* of this EA.

LAND RESOURCES

The proposed game farm site lies at an elevation of approximately 2,800 feet in a broad, northwest-trending valley bounded by the Whitefish (Galton) Range on the east and the Salish Mountains on the west. Topography of the regional valley bottom is dominated by numerous lakes and northwest-trending hills of glacial till (drumlins) (Figure 1). The game farm site consists of nearly level to gently sloping bottomland along Mud Creek and is surrounded by portions of the Kootenai National Forest and privately-owned forest land. Crop and pasture lands bound the site on the east and occur in a few patches in the surrounding area (Figure 2). Approximately 12 rural residences are located within one mile of the site.

Two landtype associations are present in the proposed game farm area: Typic Eutrochrepts in the north half and Typic Eutroboralfs in the south half. Both soils are formed in calcareous glacial till and are subject to moderate to severe soil erosion, respectively. Lime accumulations in both soils limits revegetation in areas where the lower part of the subsoil becomes exposed.

WATER RESOURCES

Surface water from the proposed game farm flows west through Mud Creek which consists of a relatively small, straight channel with a low gradient. Two man-made ponds exist on the site which are connected to Mud Creek by a ditch. After leaving the site, Mud Creek flows into Therriault Creek, which then flows into the Tobacco River, and finally discharges to Lake Kootenai approximately 10 miles northwest of the game farm site.

An approximately 160-foot deep well located on the north side of the game farm site would supply water for the domestic elk. Water from Mud Creek and the ponds would also be used to water the elk and for irrigation. Approximately 12 water supply wells are located within 1 mile of the site. Total depths of the wells range from 75 to 230 feet. Static water levels in the wells range from 35 to 186 feet below grade, although the depth to groundwater is typically about 50 feet. Several water rights for Mud Creek located upstream and downstream of the proposed game farm site are listed with the Montana Department of Natural Resources and Conservation.

AIR RESOURCES

The proposed game farm has several sparsely distributed neighboring residences within 1/4 mile of the site. No apparent air quality problems or concerns occur in the area.

VEGETATION RESOURCES

The proposed game farm is comprised of irrigated cropland (10 acres) and non-irrigated cropland (10 acres). It is currently managed for hay production. Tame pasture (Timothy and red clover) has been planted in both the irrigated and non-irrigated land. The only remaining significant native vegetation in this area are sedges growing along the banks of Mud Creek. In addition, one medium-sized ponderosa pine tree is growing on a moderate slope in the northeast corner of the proposed game farm. There are no Federally listed threatened or endangered plant species expected to occur within the proposed game farm. The proposed game farm does contain suitable habitat for noxious weeds such as spotted knapweed, Canada thistle and mullein.

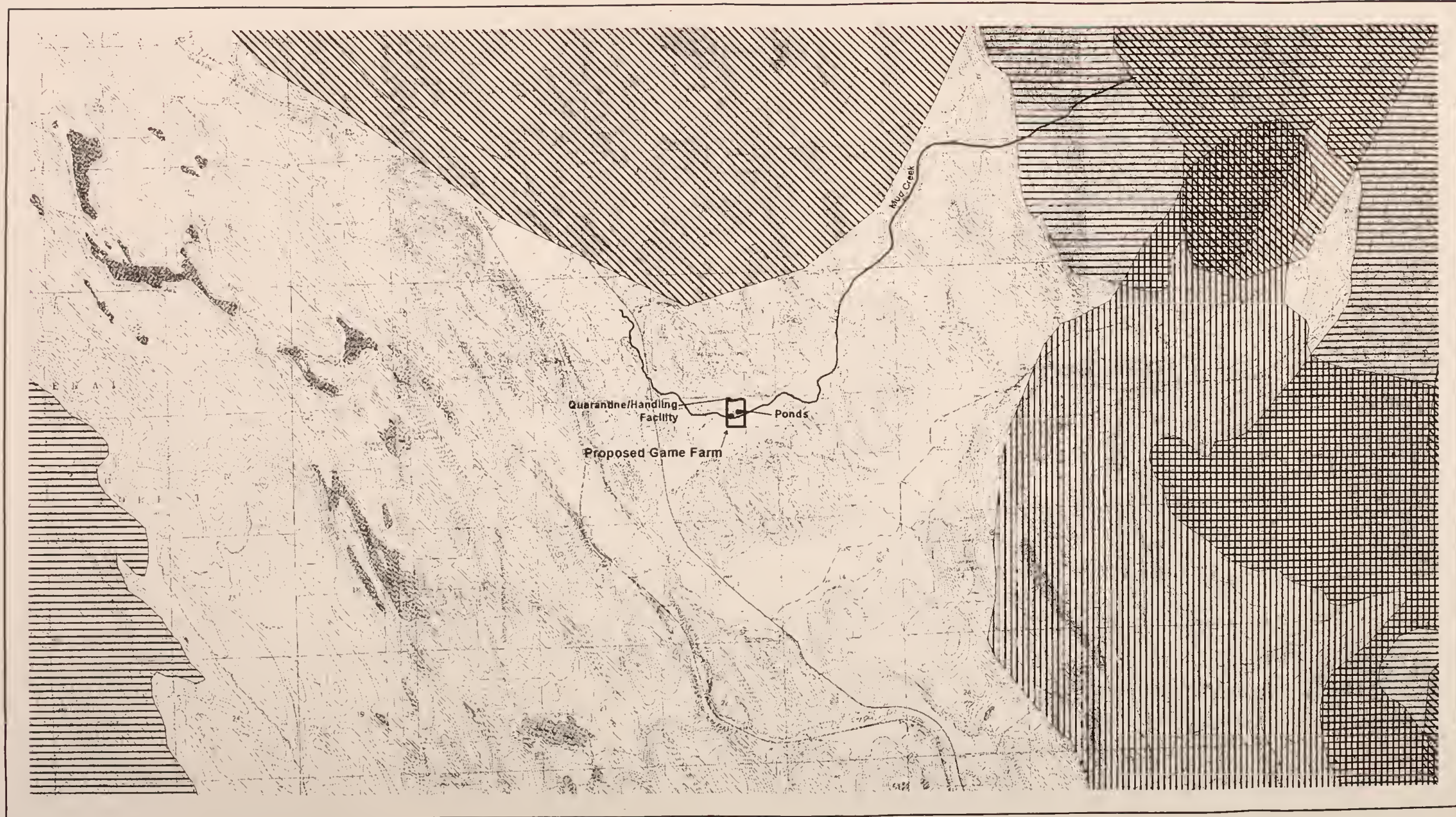
WILDLIFE RESOURCES

White-tailed deer inhabit the general area around the proposed game farm site, but the lack of vegetative cover on the proposed game farm site reduces deer habitat suitability (Figure 3). Estimated white-tailed deer density in this area is 10-20 deer per square mile with an increase in the winter months to 20-40 deer. In addition to white-tailed deer, elk, moose, mountain lions, black bears, gray wolves, and grizzly bears could potentially be transient through this area. The latter two species are Federally listed as threatened. Some bald eagles are year long residents in this area (Kootenai/Tobacco Rivers), while other eagles are spring/fall migrants. The peregrine falcon is potentially migratory through this area. Both the bald eagle and peregrine falcon are Federally listed as threatened and endangered, respectively.

LAND USE/COMMUNITY

Kootenai National Forest and privately-owned forested land dominate the area surrounding the site. Crop and pasture land bounds the site on the east and occurs in a few patches in the surrounding area. Approximately 12 rural residences are located within one mile of the site.

Local residents in the vicinity of the game farm appreciate their space and outdoor recreational activities provided by the natural environment and its resources such as hunting, fishing, hiking, skiing, snowmobiling, photography, picnicking, wood gathering, and wildlife and landscape viewing.



RISK/HEALTH HAZARDS

Domestic elk may carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then come in contact with wild deer, elk or other wildlife. Shooting of domestic elk by the game farm operator would occur on a very occasional basis when necessary; no public fee shooting of elk would occur.

AESTHETICS/RECREATION

The proposed game farm site is located adjacent to and near Kootenai National Forest lands. These public areas offer access to outdoor activities such as hiking, skiing, camping, picnicking, hunting, photography, and wildlife viewing. General access to these areas is from private land or from county roads, namely the Fort MacLeod Trail Road.

ENVIRONMENTAL CONSEQUENCES

Only primary resources that have potential adverse effects from the Proposed Action are summarized in this section. A detailed discussion of environmental consequences is contained in *Part II* of this EA.

LAND RESOURCES

Environmental impacts to land and soil resources associated with the Proposed Action of raising elk on the approximately 20-acre site are expected to be minor with respect to land and soil resources. The primary impact would be associated with the water erosion potential where soil becomes exposed. This situation could occur if the stocking rate causes bare ground to be exposed for an extended period of time.

AIR RESOURCES

The Proposed Action has the potential to have minor impacts on air quality in the immediate vicinity of the proposed game farm enclosure. Odor problems may result from animal waste in areas where elk congregate to feed. Odors resulting from elk are likely similar to those resulting from use of the site to pasture horses or cattle.

WATER RESOURCES

The Proposed Action has the potential to impact water quality in Mud Creek. Increased erosion and runoff could result from ground disturbance along the creek caused by the domestic elk, particularly during snowmelt or major precipitation events. Localized flooding may also occur during snowmelt or major precipitation events. The streambanks would become unstable and erode into Mud Creek in areas frequented by domestic elk seeking drinking water. The elk may also wallow in or near Mud Creek which would contribute to stream sedimentation.

Domestic elk fecal matter and nutrient-enriched water could affect the quality of surface water in Mud Creek and groundwater in the site vicinity, particularly if the stocking density reaches 20 elk. Wells are located on nearby properties, but are generally more than 100 feet deep. Stocking the site with elk on a year-round basis would likely have a similar affect to using the site as horse or cattle pasture.

VEGETATION RESOURCES

The proposed game farm site could potentially supply about 85% of the annual elk forage requirement. However, elk foraging activity during the growing season would be expected to reduce plant productivity and actual forage production would be less than what is currently harvested for hay.

Areas where elk are fed, watered or handled may lose vegetative cover but this would be restricted to a small portion of the game farm including the banks of Mud Creek. Alteration of the sedges along Mud Creek could be significant.

Noxious weeds were apparent in disturbed areas of the proposed game farm during the site inspection. Year-long grazing by domestic elk would probably result in additional soil disturbance and increased noxious weed abundance.

WILDLIFE RESOURCES

The proposed game farm area includes Mud Creek which is a fishery resource. The stocking density of elk (up to 1 elk per acre) may cause increased runoff and soil erosion into the stream, especially where elk would have access to Mud Creek. Streambank disturbances caused by the elk may have a significant impact on the existing fishery, including Bull Trout habitat.

The proposed game farm is located within big game winter range, but would include open pasture land which lacks vegetative cover, therefore reducing deer and elk numbers. The proposed game farm site is not located along a migration corridor. There is a possibility wild deer and elk could enter the proposed game farm especially during periods of drifted snow or deep snow accumulation in the winter. These impacts may affect individuals but not populations. White-tailed deer inhabit the general area around the proposed game farm site, but the lack of vegetative cover on the proposed game farm reduces deer habitat suitability and, therefore, deer numbers. The lower deer numbers in the open pasture land significantly reduces the chance of ingress.

Mountain lions, black bears, grizzly bears and wolves could pass through this area on rare occasions and be attracted to the game farm due to the concentration of domestic elk and the presence of elk feed. Should a predator enter the enclosure, live capture and removal of the trespassing animal is possible. However, this is not without risks to the animal, and the loss of a wolf or grizzly bear from the local populations in this area may be a minor cumulative impact to these species.

LAND USE/COMMUNITY

The proposed game farm would be compatible with existing agricultural land uses. Use of the Kootenai National Forest land and private land adjacent to and in the vicinity of the proposed game farm by recreationists and residents probably will not change. Some local residents may feel licensing the proposed game farm operation would decrease their quality of life. Neighbors harboring negative feelings about the proposed game farm operation would perceive a loss in their sense of social well-being.

RISK/HEALTH HAZARDS

There is a potential of elk to carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then come in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk or other wildlife. It is also possible that diseases and parasites carried by wild elk or deer could be introduced to domestic elk. Chronic wasting disease (CWD) also has been detected in game farm elk, but the mode of transmission is unknown and there is no test for this disease in living animals. There is a risk to human health from diseased animals, but routine brucellosis and tuberculosis testing requirements for game farm animals offer a measure of surveillance that minimizes the risk. There is a potential for transmission of water-borne disease pathogens, if present, to be transported downstream from the game farm by Mud Creek; however, this is expected to be a minor risk because of game farm animal disease testing requirements, there

isn't much stagnant water on the site, and because surface water from the creek is not expected to be used for human consumption without treatment.

AESTHETICS/RECREATION

The visual character of the area may change as a result of the 8-foot high fence which would be constructed around the perimeter of the game farm. The impact would be minor and most likely short term since fences are a common sight in the area.

The quality or quantity of recreation probably will not change in proximity to the game farm enclosure, except possibly to a minor extent by local residents that frequent public and private land surrounding the game farm site.

CUMULATIVE EFFECTS

The Proposed Action would result in potential impacts that are individually minor, but not cumulatively significant. Development of the proposed game farm within 1/4 mile of several residences would result in a minor cumulative loss of deer habitat in this area. Although deer are not physically excluded from the residential areas, the presence of people, dogs, livestock and other disturbances degrade habitat quality. Any action at the game farm site resulting in the loss of a trespassing gray wolf or grizzly bear might represent a minor cumulative impact to local populations, assuming other man-caused mortalities to these animals are occurring in the general region.

EA CONCLUSION

MEPA and game farm statutes require FWP to conduct an environmental analysis for game farm licensing as described in the *Introduction* of this *Summary* section (p. 1). FWP prepares EAs to determine whether a project would have a significant effect on the environment. If FWP determines that a project would have a significant impact that could not be mitigated to less than significant, the FWP would prepare a more detailed EIS before making a decision.

Based on the criteria evaluated in this EA, an EIS would not be required for the Kickin Bull Ranch game farm. The appropriate level of analysis for the Proposed Action is a mitigated EA because all impacts of the Proposed Action have been accurately identified in the EA, and all identified significant impacts would be mitigated to minor or none.

MITIGATION MEASURES

The mitigation measures described in this section address both minor and significant impacts associated with the proposed Kickin Bull Ranch game farm. FWP would require stipulations to mitigate all potentially significant impacts resulting from the Proposed Action. Potential minor impacts from the Proposed Action are addressed as mitigation measures that are strongly recommended to remain in compliance with state and federal environmental laws, but are not required.

REQUIRED STIPULATIONS AND MITIGATIONS

The following stipulations are imposed by FWP for the Kickin Bull Ranch game farm and are designed to mitigate significant impacts identified in the EA to below the level of significance:

- (1) *Monitor the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained.*

- (2) *Install internal game farm fencing along both sides of Mud Creek setback a minimum of 10 feet from the flowing surface water to ensure domestic elk do not trample the streambanks.*

The two stipulations listed above are imposed to mitigate potentially significant risk to fish and wildlife posed by the proposed game farm. These stipulations, in addition to existing FWP fencing and wildlife protection requirements, are expected to reduce the risk to wildlife to below significant. If fence integrity becomes a problem, adjustment of fence requirements to include double fencing, electrification or increased height may become necessary.

The following mitigation measure has been included by the game farm applicant as part of the Proposed Action, and is repeated here as a required mitigation because of its importance in reducing potentially significant impacts to below the level of significance:

- (3) *There will be no fee shooting by the public at the Kickin Bull Ranch game farm.*

This mitigation will protect the public from potential risks that would be associated with fee shooting at the site.

RECOMMENDED MITIGATION MEASURES

The following recommended mitigation measures address minor impacts identified in the Kickin Bull Ranch game farm EA for resources that have the most potential effects from the Proposed Action:

Land Resources

- Maintain a reasonable stocking rate within the game farm enclosures to minimize changes in soil structure and potential increases in runoff and erosion from disturbed ground. A "reasonable stocking rate" is defined in the EA definitions section at the beginning of *Part II - Environmental Review*.
- Due to the potential for surface crusting, exposed soils should be revegetated promptly.

Air Resources

- Quickly incorporate waste into soil by plowing or discing.
- Spread waste during cool weather or in the morning during warm, dry weather.
- Properly dispose of animal carcasses according to county solid waste regulations. Carcasses and fecal matter should not be disposed of in or adjacent to water bodies, roads or ditches.

Water Resources

- Maintain a reasonable stocking rate in the proposed game farm area to mitigate potential impacts from erosion and fecal matter.
- Control surface water discharges from the proposed game farm site, if they occur, by employing BMPs where runoff could exit the pasture and enter Mud Creek. The BMPs may include earthen berms, vegetative buffer zones, straw bale dikes, or silt fences.

Vegetation Resources

- Monitor the proposed game farm site for invasion of noxious weeds and treat affected areas in a timely manner by implementing a noxious weed control program.

- Supplemental feed and minerals should be provided to the elk on a seasonal basis to reduce excessive grazing on preferred pasture plants.

Wildlife Resources

- Store hay, feed, and salt away from exterior fences or enclosed in bear-resistant containers or buildings.
- Feed game farm animals at interior portions of the enclosure and not along the perimeter fence. Due to the presence of both grizzly and black bears in this area, it is extremely important to limit the exposure of game farm animal feeds to bears.
- Remove excess fecal material and waste feed from the game farm and deposit at an approved site not likely to be used by humans, and domestic and wild animals.
- During winters of exceptional snow cover, removal of snow on either side the of the enclosure fence may be required to prevent ingress and egress.

Noise

- Limit noisy construction activities to daylight hours and complete work as quickly as possible.
- Stock a minimal number of bull elk to reduce bugling during the mating season.

Land Use

No mitigation measures are recommended.

Risk/Health Hazards

The mitigation measures recommended in Section 5 (*Fish/Wildlife*) are applicable to this section. In addition, risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, periodic removal of manure from concentration areas, and development of a disease immunization and parasite treatment protocol as applicable to domestic elk.

Community

No mitigation measures are recommended.

Public Services & Taxes

No mitigation measures are recommended.

Aesthetics/Recreation

No mitigation measures are recommended.

Cultural/Historical

If archeological artifacts are observed during construction of the game farm fence or from other activities, work should stop in the area and the discovery reported to the Montana Historical Society in Helena. If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs and preserve the artifact(s).

PART I. GAME FARM LICENSE APPLICATION

ENVIRONMENTAL ASSESSMENT CHECKLIST

Montana Fish, Wildlife & Park's authority to regulate game farms is contained in sections 87-4-406 through 87-4-424, MCA and ARM 12.6.1501 through 12.6.1519.

1. **Name of Project:** Nadon - Kickin Bull Ranch Game Farm

Date of Acceptance of Completed Application: November 27, 1998

2. **Name, Address and Phone Number of Applicant(s):**

Bradley T. Nadon, 750 Fort MacLeod Trail, Eureka, MT 59917
phone 406-889-3848

3. **If Applicable:**

Estimated Construction/Commencement Date: November 1, 1998

Estimated Completion Date: November 1, 2000

Is this an application for expansion of existing facility or is a future expansion contemplated?

No.

4. **Location Affected by Proposed Action (county, range and township):**

Lincoln County, 20 acres in the following:
W1/2;W1/2;NE1/4;NE1/4 and NW1/4;NE1/4;Sec.10;T35N;R26W.

5. **Project Size:** Estimate number of acres that would be directly affected that are currently:

(a) Developed:	(d) Floodplain...	0	acres
residential.....	0.0	acres	
industrial.....	0.0	acres	
(b) Open Space/Woodlands/Areas.....	0	acres	
(c) Wetlands/Riparian Areas.....	0	acres	
(e) Productive:	irrigated cropland.....	10	acres
	dry cropland.....	10	acres
	forestry.....	0	acres
	rangeland.....	0	acres
	other.....	0	acres

6. **Map/site plan:**

The following maps are included in the introductory summary of this EA:

Figure 1: Site Map (Including Land Ownership)
Figure 2: Land Use / Land Cover
Figure 3: Big Game Distribution

7. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action:

FWP received the application, dated October 22, 1998 from Bradley Nadon on October 30, 1998 to construct a 20 acre elk game farm in Lincoln County, Montana. An amended application was received on November 20, 1998 from Bradley Nadon which included the following revisions: an exterior boundary setback, new northeast corner fencing location and new quarantine and handling facility location and layout. The proposed Kickin Bull Ranch game farm would be located approximately 6 miles southeast of Eureka, Montana. The applicant would live adjacent to the game farm year round.

The Proposed Action consists of placing up to 20 elk in the game farm year-round for providing breeding stock and antler production. Perimeter fence gates would remain locked at all times except when game farm animals are moved into or out of the enclosure, at which time the gates would be monitored to prevent ingress/egress. The fence would be constructed and wild animals would be removed from the game farm enclosure prior to issuance of the license by FWP and DoL.

The applicant would sell and dispose of domestic elk in accordance with Montana game farm and disease control requirements stipulated in Montana statute and administrative rules. Fence construction would be completed in accordance with requirements of ARM 12.6.1533. Game farm fencing would be constructed with an 8-foot setback from the exterior fencing existing along the west and south property boundaries, with an 8-foot setback from the toe of the hill located in the northeast corner of the property and with a 4-foot setback from the exterior fencing along the east property boundary. The game farm fence would consist of 8-foot high, 6-inch mesh, high-tensile big game fencing; supported by 11-foot long, 2^{3/8}-inch diameter steel pipe set 3 feet into the soil and spaced at 20-foot intervals. Corner posts and braces would be 2^{7/8}-inch diameter pipe and cemented in the ground. Culverts existing beneath the game farm fence would have both ends covered with removable 1/2-inch diameter rebar grating.

A total of two 8-foot high steel gates would be included in the perimeter fence. Gates will consist of a 2-inch diameter structural metal tubing frame, 8 feet high, and reinforced with hog paneling. The gates will have a double latch and single chain lock. A handling and quarantine facility would be constructed in the northwest portion of the game farm for purposes of handling and testing the elk; this would be constructed according to Montana Department of Livestock (DoL) standards. Several internal fences would be constructed to allow rotational grazing of pastures. The Proposed Action includes an internal fence along the south side of Mud Creek, but not along the north side.

8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction:

(a) Permits:

Agency Name	Permit	Approval Date and Number
Department of Livestock	approval of quarantine and handling facility	Pending

(b) Funding:

Agency Name	Funding Amount
None	

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
Montana Department of Livestock	disease control
Montana Department of Environmental Quality (DEQ)	water quality, air quality waste management
Montana State Historical Preservation Office (SHPO)	cultural resources
Montana Department of Natural Resources and Conservation (DNRC)	water rights
Natural Resource Conservation Service (NRCS)	soil conservation
Lincoln County Conservation District	stream crossings
U.S. Army Corps of Engineers (COE)	wetlands
Lincoln County Weed Control District	weed control

9. List of Agencies Consulted During Preparation of the EA:

Montana Department of Livestock
Montana Department of Environmental Quality
Montana State Historical Preservation Office
Montana Department of Natural Resources and Conservation
Natural Resource Conservation Service
Lincoln County Planning Department
Lincoln County Tax Revenue Department

REFERENCES:

Nadon, Bradley. 1998. Application for the Nadon - Kickin Bull Ranch Game Farm. Initial application dated October 22, 1998 and amended November 20, 1998.

PART II ENVIRONMENTAL REVIEW

This section of the EA presents results of an environmental review of the proposed Kickin Bull Ranch game farm (Proposed Action). The assessment evaluated direct and indirect impacts and cumulative effects of the Proposed Action on the following resources of the physical environment: land, air, water, vegetation, fish and wildlife; and the following concerns of the human environment: noise, land use, human health risk, community impacts, public services and taxes, aesthetics and recreation, and cultural and historical resources. Impacts were determined to fall in one of four categories: unknown, none, minor and significant. For the purposes of this EA, and in accordance with ARM 12.6.1525, these terms are defined as follows:

EA DEFINITIONS

Cumulative Effects: Collective impacts on the physical and human environment of the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impacts statement evaluation, or permit processing procedures.

Unknown Impacts: Information is not available to facilitate a reasonable prediction of potential impacts.

Significant Impacts: A determination of significance of an impact in this EA is based on individual and cumulative impacts from the Proposed Action. If the Proposed Action results in significant impacts that can not be effectively mitigated, FWP must prepare an EIS. The following criteria are considered in determining the significance of each impact on the quality of the human environment:

- severity, duration, geographic extent and frequency of occurrence of the impact;
- probability that the impact would occur if the Proposed Action occurs;
- growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative effects;
- quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values;
- importance to the state and to society of each environmental resource or value that would be affected;
- any precedent that would be set as a result of an impact of the Proposed Action that would commit FWP to future actions with significant impacts or a decision in principle about such future actions; and
- potential conflict with local, state, or federal laws, requirements, or formal plans.

Reasonable Stocking Rate: The density of animals appropriate to maintain vegetative cover in pasture condition that minimizes soil erosion from major precipitation events and snowmelt. Factors to consider in determining an overall reasonable stocking rate include vegetation type and density, ground slope, soil type, and precipitation.

PHYSICAL ENVIRONMENT

1. LAND RESOURCES	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	Would the Proposed Action result in:	UNKNOWN	NONE	MINOR	SIGNIFICANT	
a. Soil instability or changes in geologic substructure?			X			
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?				X	Yes	1(b)
c. Destruction, covering or modification of any unique geologic or physical features?			X			
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?			X			

AFFECTED ENVIRONMENT:

The proposed Kickin Bull Ranch game farm is located on about 20 acres approximately 6 miles southeast of Eureka, Montana and consists of nearly level to gently sloping bottomland along Mud Creek. Currently, the land is used for irrigated cropland (10 acres) and non-irrigated cropland (10 acres) (Nadon, 1998). The site lies at an elevation of approximately 2,800 feet in a broad, northwest-trending valley bounded by the Whitefish (Galton) Range on the east and the Salish Mountains on the west. Topography of the regional valley bottom is dominated by numerous lakes and northwest-trending hills of glacial till (drumlins) (Figure 1). National Forest and privately-owned forested land dominate the area surrounding the site. Crop and pasture land bounds the site on the east and occurs in a few patches in the surrounding area (Figure 2). Approximately 12 rural residences are located within one mile of the game farm site.

Soil information is available from the Soil Survey of the Kootenai National Forest (Natural Resources Conservation Service, 1995). The south half of the site, including Mud Creek, is mapped as Typic Eutroboralfs, moraines. The north half of the site is mapped as Typic Eutrochrepts, moraines. Both soils formed in calcareous, compact glacial till. The Eutroboralfs have a silt loam surface layer about 6 inches thick and silty clay loam subsoil with 20 to 50 percent rounded rock fragments to a depth of 60 inches or more. The lower part of the subsoil is calcareous. Rut formation is a hazard if unsurfaced roads are traveled when the soil is wet. Surface crusting limits revegetation in areas where the lower part of the subsoil becomes exposed. Eutroboralf soil erosion hazard is severe. The Eutrochrepts have a silt loam surface layer about 16 inches thick and calcareous, very gravelly silt loam subsoil with 20 to 50 percent rounded rock fragments to a depth of about 30 inches. The Eutrochrepts substratum consists of calcareous very gravelly fine sandy loam to a depth of 60 inches or more. Tread erosion tends to remove fine textured material from unsurfaced roads, causing the remaining gravel and cobbles to form a rough surface. Surface crusting limits revegetation where the substratum becomes exposed. Eutrochrepts soil erosion hazard is moderate.

PROPOSED ACTION:

- 1(b) Approval of the game farm permit application is expected to have only minor impacts to land and soil resources. The primary impact would be associated with the water erosion potential where soil becomes exposed. This situation could occur if the stocking rate causes bare ground to be exposed for an extended period of time.

NO ACTION:

Under the No Action Alternative, the current condition of the property would not change.

CUMULATIVE EFFECTS:

As the site is currently used for agricultural production, the cumulative effect of using the proposed area as a game farm is expected to be slight. The proposed game farm area does not contain any unique or significant soil or land resources that would be lost due to the proposed land use change.

COMMENTS:

Required Stipulations: None.

Recommended Mitigation Measures:

- Maintain a reasonable stocking rate within the game farm enclosures to minimize changes in soil structure and potential increases in runoff and erosion from disturbed ground. A "reasonable stocking rate" is defined in the EA definitions section at the beginning of Part II - Environmental Review.
- Due to the potential for surface crusting, exposed soils should be revegetated promptly.

REFERENCES:

Nadon, Bradley T. 1998. Application to Construct Kickin Bull Ranch Game Farm. Application dated October 22, 1998 and amended November 20, 1998.

Natural Resources Conservation Service, U.S. Department of Agriculture. 1995. Soil Survey of Kootenai National Forest Area, Montana and Idaho. A publication of the National Cooperative Soil Survey. 122 pages with maps and sheets.

PHYSICAL ENVIRONMENT

2. AIR Would the Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Emission of air pollutants or deterioration of ambient air quality?		X				
b. Creation of objectionable odors?			X		Yes	2(b)
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				

AFFECTED ENVIRONMENT:

Lands surrounding the proposed Kickin Bull Ranch game farm are predominantly forested or used for agriculture. The area is sparsely populated with no apparent air quality problems. The area is not classified for air quality attainment status (MDEQ, 1997).

PROPOSED ACTION:

- 2(b) Odor problems may result from animal waste in areas where elk congregate to feed. Odors resulting from elk are likely similar to those resulting from use of the site to pasture horses or cattle.

NO ACTION:

The No Action Alternative would likely result in continued use of the site to grow crops.

CUMULATIVE EFFECTS:

As the site is already used for agricultural production, the cumulative effect of game farm operation is expected to be negligible.

COMMENTS:

Odors are not expected to be of significant concern at the proposed game farm site due to the sparse population in this area. If odor problems arise, mitigation measures can be implemented.

Required Stipulations: None.

Recommended Mitigation Measures:

Employ the following best management practices (BMPs) to reduce odor problems if they occur:

- Quickly incorporate waste into soil by plowing or disking;
- Spread waste during cool weather or in the morning during warm, dry weather; and
- Properly dispose of animal carcasses according to county solid waste regulations. Carcasses and fecal matter should not be disposed of in or adjacent to water bodies, roads or ditches.

These and other BMPs are described in "Guide to Animal Waste Management and Water Quality Protection in Montana" (MDEQ, 1996).

REFERENCES:

Montana Department of Environmental Quality (MDEQ). 1997. Montana Air Quality Non-Attainment Areas. Revised January.

Montana Department of Environmental Quality (MDEQ). 1996. Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.

PHYSICAL ENVIRONMENT

3. WATER	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	Would the Proposed Action result in:	UNKNOWN	NONE	MINOR		
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X		Yes	3(a)
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of flood water or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?			X		Yes	3(e)
f. Changes in the quality of groundwater?			X		Yes	3(f)
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?			X		Yes	3(f)
i. Violation of the Montana non-degradation statute?		X				
j. Effects on any existing water right or reservation?		X				
k. Effects on other water users as a result of any alteration in surface or groundwater quality?			X		Yes	3(f)
l. Effects on other water users as a result of any alteration in surface or groundwater quantity?		X				

AFFECTED ENVIRONMENT:

The proposed Kickin Bull Ranch game farm is located on about 20 acres in the Mud Creek valley (Figure 2). A ¼-mile long segment of Mud Creek flows through the middle of the proposed game farm. Metal culverts would be installed where the perimeter fencing crosses the creek at the east and west side of the proposed game farm (Nadon, 1998). Two small, man-made ponds located north of Mud Creek within the proposed game farm boundaries are connected to the creek by a ditch. No floodplain has been delineated at the site by the Federal Emergency Management Agency (Christians, 1998), although snowmelt or major precipitation events may occasional cause localized flooding. Surface water from the proposed game farm flows west through Mud Creek and two ponds to Therriault Creek, and then into the Tobacco River which discharges to Lake Koocanusa approximately 10 miles northwest of the site. Flow in Mud Creek was estimated at approximately 100 gallons per minute during the site visit in November 1998.

An approximately 160-foot deep well located on the north side of the site would supply water for the domestic elk. Water from Mud Creek and the ponds would also be used to water the domestic elk and for irrigation. Approximately 12 water supply wells are located within 1 mile of the site (DNRC, 1998). Total depths of the wells range from 75 to 230 feet. Static water levels in the wells range from 35 to 186 feet below grade, although the depth to groundwater is typically about 50 feet. Approximately 17 surface water rights for Mud Creek located upstream and downstream of the proposed game farm site are listed with the Montana Department of Natural Resources and Conservation (DNRC, 1999).

PROPOSED ACTION:

- 3(a) The Proposed Action has the potential to impact water quality in Mud Creek. Increased runoff and erosion could result from ground disturbances along the creek caused by the domestic elk, particularly during snowmelt or major precipitation events. The streambanks would become unstable and erode into Mud Creek in areas frequented by domestic elk seeking drinking water. The elk may also wallow in or near Mud Creek which would contribute to stream sedimentation. The internal fence proposed along the south side of the game farm would allow selective placement of elk where they could be prevented access to Mud Creek. The soil type along the creek (Typic Eutroboralfs, moraine) has a severe erosion potential.
- 3(e) The Proposed Action has the potential to threaten fence integrity if a major snowmelt or precipitation event causes localized flooding in Mud Creek.
- 3(f) Domestic elk fecal matter and nutrient-enriched water could have a minor affect on surface water quality in Mud Creek and groundwater in the site vicinity, particularly if the stocking density reaches 20 elk. Wells are located on nearby properties, but are generally more than 100 feet deep. Stocking the site with elk on a year-round basis would likely have a similar affect to using the site as horse or cattle pasture.

NO ACTION:

Current hydrologic conditions are not expected to change under the No Action Alternative.

CUMULATIVE EFFECTS:

The general area is used for farming, ranching and logging. These activities likely have minor affects on water quality due to increased sedimentation and nutrient loading. Use of the land to raise elk is not expected to significantly change hydrologic conditions at the site. Therefore, the cumulative effect of using the approximately 20 acre site for a game farm would not likely cause cumulative effects on water resources.

COMMENTS:

The DEQ administers and enforces water quality laws (e.g., Clean Water Act and Montana Water Quality Act) relating to pollution from point and nonpoint sources. If vegetative cover is reduced significantly, the game farm operation could meet the definition of a "concentrated animal feeding operation" (CAFO) (ARM 17.30.1304(3)). A CAFO permit is not expected to be required for the proposed game farm. A "310" permit would be required from the Lincoln County Conservation District if any disturbance to the bed or banks of Mud Creek would occur from game farm fence construction or associated activities (e.g., culverts in the creek).

Due to potential minor impacts identified above from increased runoff and elk fecal matter, several mitigation measures are recommended. Other water quality protection practices may be required by DEQ if it is determined that a CAFO permit is necessary. Refer to "Guide to Animal Waste Management and Water Quality Protection in Montana" (DEQ, 1996) and "Common Sense and Water Quality, A Handbook for Livestock Producers" (Montana Department of Health and Environmental Sciences, 1994) for further information on mitigation measures.

Required Stipulations: None.

Recommended Mitigation Measures:

Due to potential minor impacts identified above from increased erosion, flooding, runoff and fecal matter, several mitigation measures are recommended.

- Maintain a reasonable stocking rate (see definition under EA Definitions, *Part II - Environmental Review*) in the proposed game farm area to mitigate potential impacts from erosion and fecal matter. Potential water quality impacts also could be minimized by disposing dead animals and excess fecal material at a site isolated from surface water and groundwater (disposal must meet county solid waste regulations).
- Control surface water discharges from the proposed game farm site, if they occur, by employing BMPs where runoff could exit the pasture and enter Mud Creek. The BMPs may include earthen berms, vegetative buffer zones, straw bale dikes, or silt fences.

REFERENCES:

Christians, Karl. 1999. Environmental Specialist, Montana Department of Natural Resources and Conservation, Helena, MT. Pers. Commun. January.

Montana Department of Natural Resources and Conservation (DNRC). 1998. Computer file search of well records. File dated February 23, 1998.

Montana Department of Natural Resources and Conservation (DNRC). 1999. Computer file search of surface water rights. File dated February 23, 1998.

Nadon, Bradley T. 1998. Application to Construct Kickin Bull Ranch Game Farm. Application dated October 22, 1998 and amended November 20, 1998.

PHYSICAL ENVIRONMENT

4. VEGETATION Will the proposed action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Changes in the diversity, productivity or abundance of plant species?			X		Yes	4(a)
b. Alteration of a plant community?				X	Yes	4(b)
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				4(c)
d. Reduction in acreage or productivity of any agricultural land?		X				4(d)
e. Establishment or spread of noxious weeds?			X		Yes	4(e)

AFFECTED ENVIRONMENT:

The proposed game farm is comprised of irrigated cropland (10-acres) and non-irrigated cropland (10 acres). It is currently managed for hay production. Tame pasture (Timothy and red clover) has been planted in both the irrigated and non-irrigated land. Productivity of this site is estimated at 4,000 pounds per acre on irrigated land and 2,600 pounds per acre on non-irrigated land (Nadon, 1998). Total productivity of the proposed game farm site is estimated at 68,600 pounds of forage. The only remaining significant native vegetation in this area are sedges growing along the banks of Mud Creek. In addition, one medium-sized ponderosa pine tree is growing on a moderate slope in the northeast corner of the proposed game farm. There are no Federally listed threatened or endangered plant species expected to occur within the proposed game farm. The proposed game farm does contain suitable habitat for noxious weeds such as spotted knapweed, Canada thistle and mullein.

PROPOSED ACTION:

- 4(a) The proposed action plans to place up to 20 adult elk on approximately 20 acres. The annual forage consumption of 20 adult elk would be approximately 80,300 pounds of forage. The proposed game farm site could potentially supply about 85% of the annual elk forage requirement. However, elk foraging activity during the growing season would be expected to reduce plant productivity and actual forage production would be less than what is currently harvested for hay. Supplemental feed on a seasonal basis will be required to maintain 20 elk throughout the year.
- 4(b) There are no plans to alter the introduced or remaining native plant communities on the proposed game farm. Areas where elk are fed or handled may lose vegetative cover but this would be restricted to a small portion of the game farm including the banks of Mud Creek. Alteration of the sedges along Mud Creek could be significant.
- 4(c) There are no known threatened or endangered plant species in this area.
- 4(d) Development of the proposed game farm would not result in the loss of any irrigated cropland or irrigated pasture land.

- 4(e) Noxious weeds were apparent in disturbed areas of the proposed game farm during the site inspection. Year-long grazing by domestic elk would probably result in additional soil disturbance and increased noxious weed abundance.

NO ACTION:

The No Action Alternative would likely result in the continuation of the present management of hay production or pasturing domestic livestock.

CUMULATIVE EFFECTS:

There are no anticipated cumulative effects on vegetation resources associated with the proposed project.

COMMENTS:

Required Stipulations:

The following stipulations are imposed by FWP for the Kickin Bull Ranch game farm and are designed to mitigate significant impacts identified in the EA to below the level of significance:

- (1) *Install internal game farm fencing along both sides of Mud Creek setback a minimum of 10 feet from the flowing surface water to ensure domestic elk do not trample the streambanks.*

This stipulation will protect the native sedge resource important for fish habitat, aquatic life, and for filtering sediment that may enter the stream. The existing bridge across the creek could be used to transport elk between pastures on either side of Mud Creek. As a result of the existing well and two ponds in the game farm area, access to the creek is not required for a domestic elk water supply.

Recommended Mitigation Measures:

- Monitor the proposed game farm site for invasion of noxious weeds and treat affected areas in a timely manner by implementing a noxious weed control program.
- Supplemental feed and minerals should be provided to the elk on a seasonal basis to reduce excessive grazing on preferred pasture plants.

REFERENCES:

Nadon, Bradley. 1999. Game farm applicant. Pers. Commun. January.

PHYSICAL ENVIRONMENT

5. FISH/WILDLIFE	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
Will the proposed action result in:						
a. Deterioration of critical fish or wildlife habitat?				X	Yes	5(a)
b. Changes in the diversity or abundance of game species?			X		Yes	5(b)
c. Changes in the diversity or abundance of nongame species?		X				5(c)
d. Introduction of new species into an area?		X				5(d)
e. Creation of a barrier to the migration or movement of animals?		X				5(e)
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				5(f)
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				5(g)

AFFECTED ENVIRONMENT:

The proposed game farm site is almost entirely cropland except for a small slope at the northeast corner of the proposed game farm pasture. A narrow corridor of native vegetation (sedges) exists along both sides of Mud Creek. Mud Creek also supports rainbow, cutthroat and brook trout fisheries. The land surrounding the proposed game farm is primarily crop and pasture land grazed by cattle and horses. There are also approximately 12 rural residences within one mile of the site.

White-tailed deer inhabit the general area around the proposed game farm site, but the lack of vegetative cover on the proposed game farm site reduces deer habitat suitability and, therefore, deer numbers. Estimated white-tailed deer density in this area is 10-20 deer per square mile with an increase in the winter months to 20-40 deer (Thier, 1999). In addition to white-tailed deer, elk, moose, mountain lions, black bears, gray wolves, and grizzly bears could potentially be transient through this area. The latter two species are Federally listed as threatened. Some bald eagles are year long residents in this area (Kootenai/Tobacco Rivers), while other eagles are spring/fall migrants. The peregrine falcon is potentially migratory through this area. Both the bald eagle and peregrine falcon are Federally listed as threatened and endangered, respectively.

PROPOSED ACTION:

- 5(a) The proposed game farm is located within big game winter range, but will include open pasture land which lacks vegetative cover, therefore reducing deer and elk numbers. The proposed game farm site is not located along a migration corridor. Activity at the proposed game farm site would not influence bald eagle nesting behavior in this area. The proposed game farm does include Mud Creek. There are undocumented reports of transient bull trout (Federally listed as threatened) in Mud Creek

(Hensler, 1998); therefore, there is a potential for significant impacts to possible Bull Trout habitat from the elk trampling streambanks in the proposed game farm. Mud Creek also supports rainbow, cutthroat and brook trout fisheries.

- 5(b) There is a possibility wild deer could enter the proposed game farm especially during periods of drifted snow or deep snow accumulation in the winter. Deer have also been documented to crawl under game-proof fencing at sites dug by coyotes. Wild elk do pass through this area on occasion and may be attracted to the proposed game farm especially during the mating season. There is a possibility wild elk could enter the proposed game farm. Wild ungulates entering the proposed game farm and exposed to domestic elk, would likely be destroyed rather than released back to the wild. These impacts may affect individuals but not populations. The lack of quality adjacent deer and elk habitat significantly reduces the chance of ingress.

Potentially, mountain lions, black bears, grizzly bears, and wolves could pass through this area (Their, 1999). The proposed game farm is situated outside of coniferous forested habitat and the probability of large carnivores encountering the proposed game farm is low. The proposed game farm is also located immediately adjacent to the game farm owner's residence which should also reduce the likelihood of a predator entering the proposed game farm. Should a predator enter the enclosure, live capture and removal of the trespassing animal is possible. However, this is not without risks to the animal, and the loss of a wolf or grizzly bear from the local populations in this area may be a cumulative impact to these species. In addition, bears that are chronic offenders may be purposely removed from the population either by lethal control, or by live capture and relocation to a zoo.

- 5(c) The containment of up to 20 adult elk on approximately 20 acres on a year-long basis is not expected to impact non-game wildlife species beyond the existing conditions of hay production.
- 5(d) There would be no introduction of a new species to this area.
- 5(e) The enclosure of approximately 20 acres with 8-foot high game-proof fencing would not alter the daily movement of the white-tailed deer living in this area. The proposed game farm is sufficiently small to allow deer easy access around the enclosure. The broad open and nearly level topography in this area would also contribute to deer moving freely through this area.
- 5(f) The proposed game farm is not likely to cause impacts to bald eagles, peregrine falcons, gray wolves or grizzly bears.
- 5(g) Construction of the approximate 20-acre enclosure would not result in conditions that increase stress to wildlife species living in this area.

NO ACTION:

No wildlife related impacts are expected to occur under the No Action Alternative. The area would likely continue to be managed for the production of hay or be grazed by domestic livestock. However, if substantial numbers of livestock grazed the site similar impacts to the Mud Creek fishery resource could occur.

CUMULATIVE EFFECTS:

There are no anticipated cumulative effects on wildlife resources associated with the proposed project.

COMMENTS:

Required Stipulations:

The following stipulations are imposed by FWP for the Kickin Bull Ranch game farm and are designed to mitigate significant impacts identified in the EA to below the level of significance:

- (1) *Monitor the game farm perimeter fence on a daily basis and immediately following major snow, rain, and wind events to ensure fence integrity is maintained.*
- (2) *Install a fence along both sides of Mud Creek setback a minimum of 10 feet from the flowing surface water to ensure domestic elk do not trample the streambanks.*

The two stipulations listed above are imposed to mitigate potentially significant risk to fish and wildlife posed by the proposed game farm. These stipulations, in addition to existing FWP fencing and wildlife protection requirements, are expected to reduce the risk to wildlife to below significant. If fence integrity becomes a problem, adjustment of fence requirements to include double fencing, electrification or increased height may become necessary.

Recommended Mitigation Measures:

The following game farm management practices would help to minimize impacts to free ranging wildlife species. Implementation of these mitigation measures, most of which are standard practices, is highly recommended and should be considered a form of mitigation.

- Store hay, feed, and salt away from exterior fences or enclosed in bear-resistant containers or buildings.
- Feed game farm animals at interior portions of the enclosure and not along the perimeter fence. Due to the presence of both grizzly and black bears in this area, it is extremely important to limit the exposure of game farm animal feeds to bears.
- Remove excess fecal material and waste feed from the game farm and deposit at an approved site not likely to be used by humans, and domestic and wild animals.
- During winters of exceptional snow cover, removal of snow on either side the of the enclosure fence may be required to prevent ingress and egress.

REFERENCES:

Hensler, Mike. 1998. Pers. Commun. Montana Fish, Wildlife & Parks Fisheries Biologist. December.

Thier, T., 1999. Pers. Commun., Montana Fish, Wildlife & Parks Biologist. January.

HUMAN ENVIRONMENT

6. NOISE EFFECTS Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Increases in existing noise levels?			X		Yes	6(a)
b. Exposure of people to severe or nuisance noise levels?		X				

AFFECTED ENVIRONMENT:

Little noise occurs in the general area of the proposed Kickin Bull Ranch game farm because of the sparse population and lack of other noise-generating activities in the area.

PROPOSED ACTION:

- 6(a) Noise levels in the vicinity of the proposed game farm may increase temporarily during game farm fence construction. Other noise expected from the proposed game farm operation would be from bull elk bugling during the mating season. The nearest residences are located within approximately 1/4 mile of the proposed game farm.

NO ACTION:

No impacts to existing noise levels are expected from the No Action Alternative.

CUMULATIVE EFFECTS:

No additional impacts on noise levels from past, present or reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

Due to distances to the nearest residences and overall sparse population in the area, it is expected noise generated from the proposed game farm would not cause a significant problem.

Required Stipulations: None.

Recommended Mitigation Measures:

- Limit noisy construction activities to daylight hours and complete work as quickly as possible.
- Stock a minimal number of bull elk to reduce bugling during the mating season.

HUMAN ENVIRONMENT

7. LAND USE Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the Proposed Action?		X				
d. Conflict with any existing land use that would be adversely affected by the Proposed Action?			X		Yes	7(d)
e. Adverse effects on or relocation of residences?			X		Yes	7(d)

AFFECTED ENVIRONMENT:

Kootenai National Forest and privately-owned forested land dominate the area surrounding the proposed Kickin Bull Ranch game farm (Figure 1). Crop and pasture lands bound the site on the east and occurs in a few patches in the surrounding area (Figure 2). Selective logging has historically been performed on these lands, and the public land is used for recreational purposes, primarily by local residents. This sparsely populated area is neither zoned nor is any development planned in the near future (Peterson, 1999).

The nearest residences occur within 1/4 mile of the proposed game farm site, with a total of approximately 12 residences within 1 mile (Figure 2).

PROPOSED ACTION:

7(d) The proposed game farm would be compatible with existing agricultural land uses. With respect to land use, no significant conflicts should result between game farm operation and the agricultural or residential areas. Potential effects of the game farm on adjacent property values are difficult to evaluate because some nearby property owners may like the idea of a game farm, whereas others would find it undesirable.

NO ACTION:

If the proposed game farm is not approved, the site likely would continue to be managed for the production of hay or be grazed by domestic livestock.

CUMULATIVE EFFECTS:

No cumulative impacts are expected on land use from the proposed game farm project.

COMMENTS:

No mitigation measures are recommended.

REFERENCES:

Peterson, Ken, 1999. Lincoln County Planning Director, Pers. Commun. Lincoln County, MT. January.

HUMAN ENVIRONMENT

8. RISK/HEALTH HAZARDS	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
Would Proposed Action result in:						
a. Risk of dispersal of hazardous substances (including, but not limited to chemicals, pathogens, or radiation) in the event of an accident or other forms of disruption?			X		Yes	8(a)
b. Creation of any hazard or potential hazard to domestic livestock?			X		Yes	8(b)
c. Creation of any hazard or potential hazard to human health?			X		Yes	8(c)

PROPOSED ACTION:

- 8(a) There is a potential of domestic elk to carry or become infected with a contagious wildlife disease or parasite such as tuberculosis, and then come in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk or other wildlife. The release of a contagious disease in the wild could severely impact native wildlife populations since white-tailed deer are present in the vicinity of the proposed game farm. It is also possible diseases and parasites carried by wild deer or elk could be introduced to the domestic elk with equally severe impacts. Ingress of wild deer or elk would likely result in the destruction of the trespassing animals. Spread of a contagious wildlife disease may directly or indirectly (depending on the nature of the disease) affect the human environment by reducing the number of wild deer and elk available for hunting or exposing hunters to diseases which are contagious to humans as well. There is a potential for transmission of water-borne disease pathogens, if present, to be transported downstream from the game farm by Mud Creek; however, this is expected to be a minor risk because of game farm animal disease testing requirements and because surface water from the creek is not expected to be used for human consumption without treatment. While water provides a favorable environment for brucellosis, the dilution factor associated with flowing surface water (i.e. Mud Creek) makes it an unlikely means of transmission (Nielson and Duncan, 1990). Survival times for brucellosis and tuberculosis in water range from a couple of days to over 100 days (Nielson and Duncan, 1990; Meyer, 1997). The route of chronic wasting disease (CWD) transmission at this time is unknown; therefore, the potential for transmission by soil, water or other media cannot be determined at this time.
- 8(b) Infectious diseases can potentially be transmitted between elk and domestic livestock. If brucellosis or tuberculosis should occur in the game farm animals, it could potentially be transmitted between different species. Chronic wasting disease (CWD) also has been detected in game farm elk, but the mode of transmission is unknown and there is no test for this disease in living animals. CWD has been a known wildlife disease for 30 years in Colorado and Wyoming. There is no evidence of CWD transmission to domestic livestock or humans.

The risk of disease being passed from domestic elk to domestic livestock would be minimal if fence integrity is maintained and appropriate mitigation measures (see Section 5 - *Fish/Wildlife*) are followed. Potential for disease transmission to domestic livestock and wildlife from game farm animals is also mitigated through DoL disease testing requirements. All animals to be placed on this game farm are required to be tested for tuberculosis at the time of import, purchase and/or transportation to the game farm. A test for brucellosis is required for all game farm animals that are sold or moved within the state, and is required for all game farm animals imported into Montana. Montana is presently a tuberculosis-free and brucellosis-free state (i.e. these diseases have not been diagnosed in domestic livestock). Each game farm is required to have access to an isolation pen (quarantine facility) on the game farm or approved quarantine plan to isolate any animals that are imported or become ill. The state veterinarian can require additional testing and place herds under strict quarantine should problems arise.

- 8(c) If tuberculosis or brucellosis were to be transmitted from domestic elk to wild deer and elk, hunters field dressing wild deer or elk would be subject to some risk of infection. Veterinarians and meat cutters working with diseased game farm animals are at risk of becoming infected with brucellosis or tuberculosis. Routine brucellosis and tuberculosis testing requirements for game farm animals offer a measure of surveillance to minimize risk to human health. Failure to comply with these requirements is grounds for license revocation. Pathogens that could be transported by Mud Creek from the game farm are expected to be a minor risk for reasons mentioned above in 8(a).

NO ACTION:

Risk/health hazards would not occur from the No Action Alternative, other than those that may be associated with the existing land use, including normal shooting activities associated with the hunting season.

CUMULATIVE EFFECTS:

No cumulative impacts with respect to human health and risk are expected as a result of the Proposed Action.

COMMENTS:

Required Stipulations and Mitigations:

The following mitigation measure has been included by the game farm applicant as part of the Proposed Action, and is repeated here as a required mitigation because of its importance in reducing potentially significant impacts to below the level of significance:

- (1) *There will be no fee shooting by the public at the Kickin Bull Ranch game farm.*

This mitigation will protect the public from potential risks that would be associated with fee shooting at the site.

Recommended Mitigation Measures:

The mitigation measures recommended in Section 5 (*Fish/Wildlife*) are applicable to this section. In addition, risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, periodic removal of manure from concentration areas, and development of a disease immunization and parasite treatment protocol as applicable to domestic elk.

REFERENCES:

Nielson, K. and J.R. Duncan, 1990. *Animal Brucellosis*. CRC Press, Ann Arbor, Michigan.

Meyer, R.M., 1997. *Tuberculosis Program Training*. U.S. Department of Agriculture, Veterinary Services, Englewood, Colorado.

HUMAN ENVIRONMENT

9. COMMUNITY IMPACT Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Changes in historic or traditional recreational use of an area?		X				
f. Changes in existing public benefits provided by affected wildlife populations and wildlife habitats (educational, cultural or historic)?			X		No	9(f)
g. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				

AFFECTED ENVIRONMENT:

The proposed Kickin Bull Ranch game farm is located approximately 6 miles southeast of Eureka, Montana in Lincoln County. No employee(s) would be hired to assist with the operation of the proposed game farm.

Local residents in the vicinity of the game farm appreciate their space and outdoor recreational activities provided by the natural environment and its resources such as hunting, fishing, hiking, skiing, snowmobiling, photography, picnicking, wood gathering, and wildlife and landscape viewing. The Kootenai National Forest land in the vicinity of the proposed game farm site is used by the public (primarily nearby residents) for these various recreational purposes.

PROPOSED ACTION:

9(f) Some local residents may feel that licensing the proposed game farm operation would decrease their quality of life. Neighbors harboring negative feelings about the proposed game farm operation would perceive a loss in their sense of social well-being.

NO ACTION:

Although there would be no game farm with the No Action Alternative, some social impacts may have already occurred through the permitting process. The potential of approving a game farm may have fractionalized some segments of the local community based upon their support or opposition to game farms. Denial of the game farm operation would be welcomed by those opposed to it and, as a result, they may consider the quality of their lives were preserved. Ill feelings, however, may be harbored by people who favor the game farm, which, in turn, may increase the social distance between individuals or groups opposing and favoring the game farm.

CUMULATIVE EFFECTS:

No cumulative impacts are anticipated on communities from operation of the proposed game farm.

COMMENTS:

No mitigation measures are recommended.

HUMAN ENVIRONMENT

10. PUBLIC SERVICES & TAXES	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	Would Proposed Action result in:	UNKNOWN	NONE	MINOR		
a. A need for new or altered government services (specifically an increased regulatory role for FWP and Dept. of Livestock)?			X		NOT APPLICABLE	10(a)
b. A change in the local or state tax base and revenues?			X		NOT APPLICABLE	10(b)
c. A need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				

AFFECTED ENVIRONMENT:

The applicant currently pays property taxes for the land included in the proposed Kickin Bull Ranch game farm. The increase in property taxes on domestic elk would be based on a \$12 per head elk tax plus \$11.76 or \$5.88 depending on the age and sex of the elk (Lincoln County Tax Revenue Office, 1999).

PROPOSED ACTION:

- 10(a) Approval of the game farm would increase time and expenses spent by FWP and DoL personnel inspecting, monitoring, and responding to complaints about operation of the proposed game farm or egress/ingress problems. Since neither FWP or DoL has the option of hiring additional employees to handle the increased workload that could potentially be created by the game farm, activities of the current staff would need to be re-prioritized to meet the increased demand created by the proposed game farm operation.
- 10(b) Placement of elk in the proposed game farm would increase the game farm operator's annual tax contribution with collected taxes going toward the county general fund and local school district. For 20 domestic elk, annual taxes would total approximately \$250 to \$475, depending on the age and sex of the elk.

NO ACTION:

Under the No Action Alternative, FWP and DoL would not have to inspect and monitor this game farm. The current status of tax payments for this property would remain for the No Action Alternative.

CUMULATIVE EFFECTS:

No cumulative impacts are expected on public services and taxes from the proposed game farm project.

COMMENTS:

No mitigation measures are recommended.

REFERENCES:

Lincoln County Tax Revenue Office, 1999. Pers. Commun. Lincoln County Courthouse Offices, Lincoln County, MT. January.

HUMAN ENVIRONMENT

11. AESTHETICS/RECREATION Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?			X		No	11(a)
b. Alteration of the aesthetic character of a community or neighborhood?			X		No	11(a)
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?		X				

AFFECTED ENVIRONMENT:

The proposed game farm site is located adjacent to and near Kootenai National Forest lands (Figures 1 and 2). These public areas offer access to outdoor activities such as hiking, skiing, camping, picnicking, hunting, photography, and wildlife viewing. General access to these areas is from private land or from county roads, namely the Fort MacLeod Trail Road (Figure 2).

PROPOSED ACTION:

- 11(a) The visual character of the area may change as a result of the 8-foot high fence which would be constructed around the perimeter of the game farm. This impact would probably be most directed at persons residing and/or recreating in the proposed game farm area. The impact is expected to be minor and most likely short term since fences are a common sight in the area.

NO ACTION:

No adverse impacts to aesthetics or recreation are expected under the No Action Alternative.

CUMULATIVE EFFECTS:

No cumulative impacts are expected.

COMMENTS:

No mitigation measures are recommended.

HUMAN ENVIRONMENT

12. CULTURAL & HISTORICAL RESOURCES Would Proposed Action result in:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?	X				Yes	12(a)
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				

AFFECTED ENVIRONMENT:

A file search was conducted by the State Historic Preservation Office (SHPO) for the proposed project area. Results of this search indicate there are two previously recorded historic or archaeological sites in the vicinity of the project area (SHPO, 1998). One is an historic trail and the other is an historic site on private land.

PROPOSED ACTION:

- 12(a) According to SHPO (1998), there is a possibility that unknown or unrecorded cultural properties may be present at the proposed game farm site. SHPO recommends a reconnaissance survey be conducted prior to project initiation to determine if sites exist and if they would be impacted by the Proposed Action.

NO ACTION:

No impacts to cultural resources are expected from the No Action Alternative unless other disturbances occur within the property.

CUMULATIVE EFFECTS:

No additional impacts from past, present and reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

Required Stipulations: None.

Recommended Mitigation Measures:

If archeological artifacts are observed during construction of the game farm fence or from other activities, work should stop in the area and the discovery reported to:

Montana Historical Society; Historic Preservation Office
1410 8th Avenue; P.O. Box 201202; Helena, Montana 59620
phone (406) 444-7715

If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs and preserve the artifact(s).

REFERENCES:

Montana State Historic Preservation Office (SHPO), 1998. Letter from Philip Melton (SHPO, Helena, MT) to Daphne Digrindakis (Maxim Technologies, Inc.). November 20.

SUMMARY

13. SUMMARY Would the Proposed Action, considered as a whole:	POTENTIAL IMPACT				CAN IMPACT BE MITIGATED	COMMENT INDEX
	UNKNOWN	NONE	MINOR	SIGNIFICANT		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?			X		Yes	13(b)
c. Potentially conflict with the substantive requirements or any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts would be proposed?	X					
e. Generate substantial debate or controversy about the nature of the impacts that would be created?			X		Yes	13(e)

PROPOSED ACTION:

13(b) The risk of domestic elk carrying or becoming infected with a contagious wildlife disease or parasite such as tuberculosis, chronic wasting disease, or meningeal worm and then coming in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk or other wildlife is discussed in Section 8 (*Risk/Health Hazards*) of this EA.

13(e) The nature of impacts to wildlife from elk game farms is currently under debate in Montana and other states. The following issues are of the greatest concern with respect to game farms:

- Disease transmission from game farm elk to wildlife is possible if the game farm elk are diseased and have an opportunity to come into contact with wild elk or deer.
- Hybridization of Montana's game species resulting from the ingress/egress of animals.
- Potential for wild animals to ingress into the game farm. Ingressing elk and deer are generally killed, typically by FWP wardens, to prevent potential disease transmittal. Ingressing mountain lions and black bears may be immobilized and removed.
- Theft of wild animals for financial gain on game farms.
- Ethics of shooting domestic elk, deer, or other animals in a game farm enclosure.
- Public safety from shooting operations.

Some of these issues are particularly controversial when game farms block migration routes or consume significant areas of land historically utilized by wild game. Inadequate perimeter fencing and fence monitoring by the game farm operator can also lead to ingress/egress events and nose-to-nose contact between wild game and game farm animals. Because the proposed Kickin Bull Ranch game farm area would not significantly block big game migration routes or consume a significant portion of land utilized by wild game, the controversial nature of the Proposed Action is minor.

SUMMARY EVALUATION OF SIGNIFICANCE CRITERIA

- a. Does the Proposed Action have impacts that are individually minor, but cumulatively considerable? (A project may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)

No, however, any action resulting in the loss of a trespassing gray wolf or grizzly bear might represent a cumulative impact to the local populations, assuming other man-caused mortalities occur in the area.

- b. Does the Proposed Action involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?

Yes. An unlikely, but extremely hazardous event should it occur, would be the spread of a disease or parasite from domestic elk to wild elk or deer. The risk of this event occurring can be reduced by following the mitigation measures listed in Section 5 (*Fish/Wildlife*) and Section 8 (*Risk/Health Hazards*) of this EA.

The recent confirmation of CWD in several game farms in other states and Saskatchewan raises concerns about the potential movement of infected animals and the difficulty in diagnosing the disease in living animals. It is not known how CWD is transmitted.

On November 11, 1998, the Montana Board of Livestock issued an emergency rule that prevents wild or captive cervids from being imported to or transported from a geographic area or game farm where CWD is endemic or has been diagnosed. Any imported animals must have resided in the exporting herd for a minimum of 12 months immediately prior to importation, or a satisfactory and complete documented animal movement history from (birth) farm or origin must be furnished. In addition, the rule requires the animals to have undergone CWD surveillance for a period of 12 months. Surveillance of Montana game farm animals for CWD will be addressed in upcoming rules drafted by DoL.

- c. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:

No Action Alternative: The No Action Alternative would avoid many of the potential impacts listed above. This site likely would continue to be managed for the production of hay or be grazed by domestic livestock. The No Action Alternative would probably not result in exclusion of wildlife from this site.

- d. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

This section provides an analysis of impacts to private property by proposed restrictions or stipulations in this EA as required under 75-1-201, MCA, and the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The analysis provided in this EA is conducted in accordance with implementation guidance issued by the Montana Legislative Services Division (EQC 1996). A completed checklist designed to assist state agencies in identifying and evaluating proposed agency actions, such as imposed stipulations, that may result in the taking or damaging of private property, is included in Appendix A. Mitigation measures described in this section address both minor and significant impacts. FWP would require stipulations to mitigate all potentially significant impacts from the Proposed Action. Most potential minor impacts from the Proposed Action are addressed as mitigation measures that are strongly recommended, but not required.

REQUIRED STIPULATION #1

- (1) *Monitor the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained.*

Restriction on Private Property Use

This stipulation does not restrict the use of private property by effectively requiring that the proposed game farm be monitored at least once daily to ensure fence integrity is maintained. The stipulation is consonant with the current FWP requirement to report ingress/egress events immediately [ARM 12.6.1538].

Alternatives

Do not monitor the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained.

This alternative would not adequately address the potential for ingress/egress at the game farm. Ingressing wild animals must be detected and reported immediately to prevent contact with wild game after contact with game farm animals. The fence should be inspected daily to adequately monitor for potential problems with fence integrity.

Benefits from Imposing the Stipulation

These stipulations are imposed to mitigate predicted risk to wildlife posed by the proposed game farm. Information provided by the stipulations would help the applicant and FWP to address ingress and egress incidents and to minimize contact between wild and domestic animals. These stipulations, in addition to existing FWP fencing and wildlife protection requirements, would effectively reduce the risk to wildlife.

Types of Expenditures the Stipulation Would Require

The stipulation to require monitoring the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained would not impose any additional expenditures beyond those necessary to report ingress/egress events in accordance with ARM 12.6.1538. Monitoring of the game farm fence on a daily basis can easily occur because the applicant would reside on-site year-round.

Stipulation's Effect on Property Values

None.

REQUIRED STIPULATION #2

- (3) *Install internal game farm fencing along both sides of Mud Creek setback a minimum of 10 feet from the flowing surface water to ensure domestic elk do not trample the streambanks.*

Restriction of Private Property Use

This stipulation does not provide for any additional restrictions on private property use.

Alternatives

Do not construct a game farm fence along both sides of Mud Creek setback a minimum of 10 feet from the flowing surface water.

This alternative would not adequately address the potentially significant risk to the native vegetation (sedges) and fisheries (especially Bull Trout habitat) along and within Mud Creek.

Benefits from Imposing the Stipulation

This stipulation is imposed to mitigate potentially significant risk to native vegetation (sedges) and fisheries along and within Mud Creek.

Types of Expenditures the Stipulation Would Require

The stipulation would require approximately \$3,000-\$4,000 in materials and labor to install the fencing along the north side of Mud Creek. The Proposed Action already includes a fence along the south side of Mud Creek. Costs may be less depending on fence design because the internal fences would not have to meet FWP standards for a perimeter fence.

Stipulation's Effect on Property Values

None.

PART III. NARRATIVE EVALUATION AND COMMENT

PROVIDE NARRATIVE DESCRIPTION FOR THE FOLLOWING:

Wildlife use of the area and potential for through-the-fence contact with game farm animals (consider year-around use, traditional seasonal habitat use, and location of travel routes and migration corridors).

Through the fence contact: The proposed game farm is located in moderate density white-tailed deer habitat. An occasional wild elk or moose may pass through this area. Wild elk would be expected to be attracted to the game farm by domestic elk. Nose-to-nose contact is most likely to occur between wild and domestic elk and unlikely to occur between white-tailed deer and domestic elk within the game farm. Transmission of disease or parasites may occur during nose-to-nose contact, nose-to-body contact, and by contacting vegetation and feces along the fence line. Disease transmission may occur from wild ungulates to domestic elk and from domestic elk to wild ungulates. Diseases such as tuberculosis are highly contagious and can be easily transmitted between domestic and wild big game species. Tuberculosis can also be transmitted to humans and is a serious health risk.

Chronic Wasting Disease (CWD) has been documented in game farm elk in several states. Montana now has two suspect herds but there is no evidence that CWD is present in wild deer or elk. There is no diagnostic test for CWD in live animals and confirmation of the disease can only be made upon post mortem necropsy. However, CWD disease is believed to be confined to Cervids and has not been documented in Bovids.

Risk of disease transmission can be reduced by maintaining the integrity of the enclosure fence, by maintaining a healthy domestic big game population, and by following the previously listed mitigation recommendations. If the game farm is managed properly, the risk of disease transmission from domestic elk to wild ungulates would likely be minimal.

Potential for escape of game farm animals or ingress of wildlife (consider site-specific factors that could reduce the effectiveness of perimeter fences built to standards outlined in ARM 12.6.1533, including steepness of terrain, winter snow depths/drifts, susceptibility of fences to flood damage, etc.).

Fence integrity: Game farm fencing would be constructed with an 8-foot setback from the exterior fencing existing along the west and south property boundaries, with an 8-foot setback from the toe of the hill located in the northeast corner of the property and with a 4-foot setback from the exterior fencing along the east property boundary. The game farm fence would consist of 8-foot high, 6-inch mesh, high-tensile big game fencing; supported by 11-foot long, 2^{3/8}-inch diameter steel pipe set 3 feet into the soil and spaced at 20-foot intervals. Corner posts and braces would be 2^{7/8}-inch diameter pipe and cemented in the ground. Culverts existing beneath the game farm fence would have both ends covered with removable 1/2-inch diameter rebar grating.

A total of two 8-foot high steel gates would be included in the perimeter fence (Figure 2). Gates will consist of a 2-inch diameter structural metal tubing frame, 8 feet high, and reinforced with hog paneling. The gates will have a double latch and single chain lock. A handling and quarantine facility would be constructed in the northwest portion of the game farm (Figure 2) for purposes of handling and testing the elk; this would be constructed according to DoL standards. Internal fences would also be constructed in the game farm.

The proposed game farm site is nearly level. Aside from the lone ponderosa pine tree in the northeast corner of the proposed game farm and several trees near the south fence line, there are no trees in the vicinity of the proposed game farm fence. Trees are not a major hazard at this site. Overall, the site potential for fencing this pasture is good to excellent.

The enclosure site is located at an elevation of about 2,800 feet in the Mud Creek valley. The expected snow levels during winter will vary greatly in relation to the amount of snowfall, and wind velocity and direction

associated with storms passing through this area. This area has the potential to receive considerable snowfall in single storm events and cumulatively during the winter. One to 2 feet of compacted snow on the ground can be expected in at least some winters. The proposed game farm is located on flat open ground and the potential for drifting snow is high should wind accompany a snow storm.

Proportion (%) of the total habitat area currently used by wildlife that will be enclosed or otherwise impacted.

The enclosure will exclude a few resident wild white-tailed deer from approximately 20 acres of year-long range. Agricultural and subdivided land similar to that at the proposed game farm site is widely available to deer in other nearby areas. The game farm represents less than 1% of this habitat.

PART IV. EA CONCLUSION

1. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO

No. The appropriate level of analysis for the Proposed Action is a mitigated EA because:

- all impacts of the Proposed Action have been accurately identified in the EA; and
- all identified significant impacts would be mitigated to minor or none.

2. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the Proposed Action, is the level of public involvement appropriate under the circumstances?

Upon completion of the Draft EA, a notice is sent to adjoining landowners, local newspapers, and other potentially affected interests, explaining the project and asking for input during a 21-day comment period which extends from February 11, 1999 until 5 pm March 4, 1999. The Draft EA is also available to the public from the FWP office in Kalispell at the address and phone number listed below and in the *Summary* section of this EA (p. 2), and through the State Bulletin Board System during the public comment period.

3. Duration of comment period, if any: 21 days

4. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

Fish, Wildlife & Parks

Jim Roberts, FWP Region 1 Game Warden
75 Pings Road
Eureka, Montana 59917
(406) 889-3404

Tim Thier, Wildlife Biologist
Box 507
Trego, Montana 59934
(406) 882-4697

Karen Zackheim, FWP Game Farm Coordinator
Enforcement Division
1420 E. Sixth Avenue
Helena, MT 59620

Maxim Technologies, Inc.

Daphne Digrindakis, Project Manager
Doug Rogness, Hydrologist
Chris Cronin, Soil Scientist
Aaron Shewman, Staff Engineer
Valerie Jaffe, GIS and Graphics

FaunaWest Wildlife Consultants

Craig Knowles, Wildlife Biologist

APPENDIX A

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

The 54th Legislature enacted the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The intent of the legislation is to establish an orderly and consistent process by which state agencies evaluate their proposed actions under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."

The Private Property Assessment Act applies to proposed agency actions pertaining to land or water management or to some other environmental matter that, if adopted and enforced without compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.

The Montana State Attorney General's Office has developed guidelines for use by state agency to assess the impact of a proposed agency action on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency action has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act. For the purposes of this EA, the questions on the following checklist refer to the following required stipulation(s):

Monitor the game farm perimeter fence on a daily basis and immediately after major snow, rain, and wind events to ensure fence integrity is maintained.

Install internal game farm fencing along both sides of Mud Creek setback a minimum of 10 feet from the flowing surface water to ensure domestic elk do not trample the streambanks.

There will be no fee shooting by the public at the Kickin Bull Ranch game farm.

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

YES	NO	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	2. Does the action result in either a permanent or indefinite physical occupation of private property?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	3. Does the action deprive the owner of all economically viable uses of the property?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	4. Does the action deny a fundamental attribute of ownership?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is NO , skip questions 5a and 5b and continue with question 6.]
<input type="checkbox"/>	<input type="checkbox"/>	5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
<input type="checkbox"/>	<input type="checkbox"/>	5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	6. Does the action have a severe impact on the value of the property?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is NO , do not answer questions 7a-7c.]
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7a. Is the impact of government action direct, peculiar, and significant?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7c. Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if **YES** is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if **NO** is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

